Test Report n° TR_21364
Rapporto di prova n° TR_21364

Environmental testing – Test Eh: Hammer test (IK Degree)
Prove ambientali – Prova Eh: Prove di impatto (Grado IK)

Ref: test procedure IL 22016
Rif: procedura di test IL22016

Product under test ***Prodotto testato***	CPTOU4615 LS P3L3ARIO2H-4G1WTTSPFAEZ0
P/N ***P/N***	993202033501
Lab Sample ID ***ID campione***	N/A
Received date ***Ricevuto il***	15/03/2021
Derived models ***Modelli derivati***	993202033500 / D_CPTOU4615 LS P3L3ARIEH------EZ0
Standard/Rev. Date/Ed. ***Standard/Data Revisione/Ed.***	**EN 62262:2002-07** – *Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)*
Manufacturer ***Costruttore***	AESYS S.p.A. Via Pastrengo 7c 24068 Seriate (BG) Italia Tel: +39.0352924111 www.aesys.com
Start test date ***Data inizio test***	01/12/2021
End test date ***Data fine test***	01/12/2021
First issue ***Prima emissione***	02/12/2021
Laboratory Technician ***Tecnico di laboratorio***	Mirco Magoni
Laboratory Manager ***Responsabile di laboratorio***	Marco Verzeroli
Verdict ***Esito***	**COMPLIANT**
Revision ***Revisione***	000
Revision date ***Data revisione***	02/12/2021

Revision	Reason	Name	Sign
000	First release		

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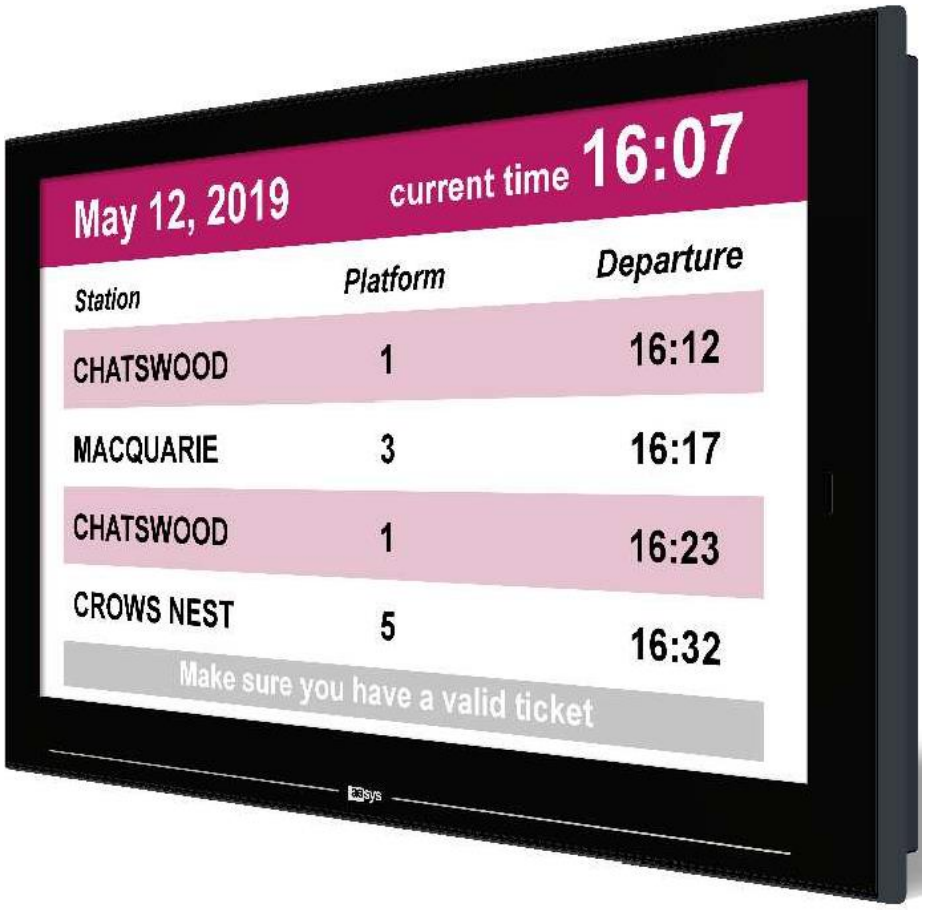
1 DUT –GENERAL PRODUCT INFORMATION
DUT – INFORMAZIONI GENERALI

The DUT (Device Under Test), **CPTOU4615LSP3L3ARIO2H-4G1WTTSPFAEZ0**, is a variable message panel based on TFT technology used for video-information in railways applications.



CPTOU4615 LS P3L3ARIO2H-4G1WTTSPFAEZ0

DUT label

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2 TEST PROCEDURE
PROCEDURA DI TEST

Test performed according to Aesys internal procedure *IL22016_Protezione contro gli impatti meccanici esterni*.

3 TEST EQUIPMENT INFORMATION
STRUMENTAZIONE UTILIZZATA

ID	Description	Model	Manufacturer	Serial n°	Last Calibration Date	Next Calibration Date
133	Hammer	1,7Kg	Galbusera	02,26 5J	10/05/2019	17/05/2029
549	Thermo hygrometer	175H1	Testo	44601467	03/03/2021	05/03/2023

4 TEST PARAMETERS
PARAMETRI DI TEST

IK Degree classification according to **EN 62262:2002-07** – *Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)*

IK Degree	**IK08**
Energy [J]	**5**
Equivalent mass [Kg]	**1,7**
Height of fall [mm]	**300**
Impact points	**5**
Pre-conditioning	**No**

Test measurements uncertainty:	Mass of the hammer:	± 2%
	Height of fall:	± 2cm

Measurement uncertainties estimated as extended uncertainty, obtained multiplying the standard uncertainty by the coverage factor *k* corresponding to a confidence level of about 95%.

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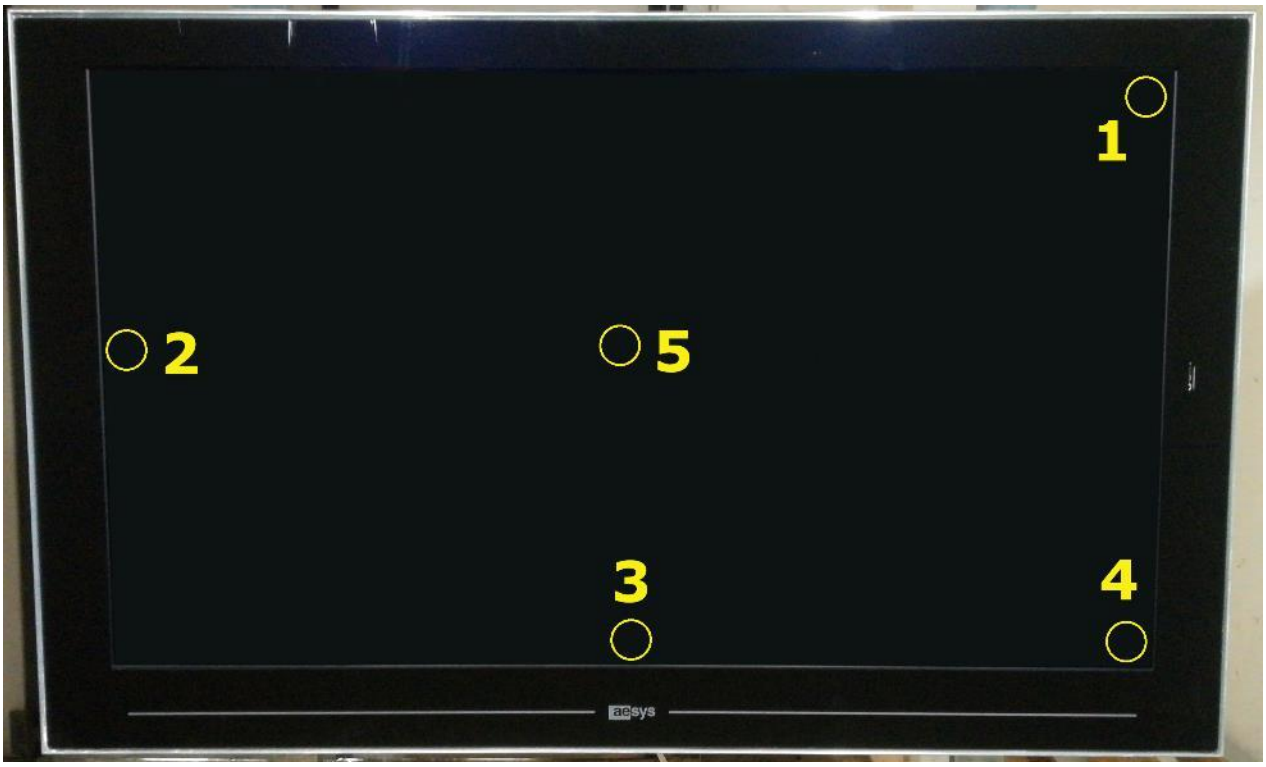
5 TEST SETUP
TEST SETUP

The verification of protection against impacts consists of a striking element, which falls freely from rest through a vertical height of 300mm onto the specimen surface held in a horizontal plane.
The characteristics of the striking element is compliant to the specifics given in the standard **IEC 60068-2-75:1997**.

5.1 Setup pictures and impact points definition
Foto del setup e definizione dei punti di impatto

<Test arrangement>



<Impact points>

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6 TEST RESULT
RISULTATO DEL TEST

Test	Performance criteria	Result	Verdict
Environmental temperature	Between +15°C and +35°C	21,4°C	**PASS**
Relative humidity	Between 25% and 75%	31,2%	**PASS**
Pressure	Between 860 and 1060 hPa	1011 hPa	**PASS**

N°	Impact point	Performance criterion	Result	Verdict
1	Top right side	No break or crack	No break or crack	**PASS**
2	Centre left side	No break or crack	No break or crack	**PASS**
3	Bottom centre	No break or crack	No break or crack	**PASS**
4	Bottom right side	No break or crack	No break or crack	**PASS**
5	Centre	No break or crack	No break or crack	**PASS**

Performance criterion as per product standard or customer request. In each case, the minimum criterions are:
- No challenge to security: no live parts accessible after test, no reduction of isolations.
- Visual check, no loss of performances.

END OF TEST REPORT
Fine del report

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